

U.S. Department of the Interior
Bureau of Land Management
White River Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2004-191 -EA

CASEFILE/PROJECT NUMBER (optional): COD 032675 (well #81X)
COD 052265 (well #12X)
COD 053981 (well #3X)
COD 032675 (well #39A re-drill)
COD 052265 (well # 3X)
Fee (#2X)

PROJECT NAME: 6 APD's with associated roads and flowlines

LEGAL DESCRIPTION:

Wells: T. 2N, R.103W, sec. 13 SWNE (well #81X)
sec. 15 NESW (well #12X),
sec. 14 NENE (well #2X Fee),
sec. 15 SESW (well #3X),
sec. 15 NENE (well #13X),
sec. 12 SWSW (well #39A redrill)

Flowlines: T.2N, R.102W, sec 18
T.2N, R.103W, sec 12, 13, 14, 15, 22, 23

APPLICANT: Chevron Production Company

ISSUES AND CONCERNS (optional): The project area is broadly encompassed by white-tailed prairie dog habitat. Prairie dogs and their burrow systems are important components of burrowing owl habitat, as well as potential habitat for reintroduced populations of black-footed ferret.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: The Rangely Field is a Federal Unit containing 19,153 acres of which 8,196 acres are federal land. This field has been producing from the Weber formation since 1944. All produced gas from the field is reinjected into the formation through CO₂ compression facilities. An H₂S Contingency plan is on file at the White River BLM office.

Proposed Action: - Chevron Production Company is proposing to drill 5 new wells and one re-entry well, access roads and associated flowlines in the Rangely Weber Sand Unit. Total disturbance for the well pads will be 17.32 acres. Total new disturbance for the access roads will be 0.72 acres. Total flowline disturbance will be approximately 27.05 acres. The disturbance for the complete project will be approximately 45.09 acres.

A 13 Point surface Use Plan was submitted with the APDs and is available for review in the individual files at the White River Field Office. Below is a summary of these plans.

Well Pads and Access Roads

Well # 81X proposed access road is 0.15 miles long by 30' wide (.51 acres). The proposed well pad location is 320' X 400' (2.94 acres). Total disturbance anticipated for this well is 3.45 acres.

Well # 12X has no proposed access road. The proposed location is 320' X 400' (2.94 acres). Total disturbance anticipated for this proposed location is 2.94 acres.

Well # 2X proposed access road is 100' long by 30' wide (.07 acres). The proposed location is 320' X 400' (2.94 acres). Total disturbance anticipated for this proposed location is 3.01 acres.

Well # 3X has no proposed access road. The proposed location is 320' X 400' (2.94 acres). Total disturbance anticipated for this proposed location is 2.94 acres.

Well # 13X proposed access road is 200' long by 30' wide (.14 acres). The proposed location is 320' X 400' (2.94 acres). Total disturbance anticipated for this proposed location is 3.08 acres.

Well # 39A has no new access road. The proposed location is 285' X 400' (2.62 acres). Total disturbance anticipated for this proposed location is 2.62 acres. This location has been previously disturbed and is a redrill.

Chevron Field flowlines

Chevron proposes to construct new flowlines with a new satellite header at SWSE, sec.15, T2N, R103W to connect the proposed wells to existing flowlines and collection stations. See attached Map A. Flowlines are as follows:

from MC Hagood A 13X	to satellite header	approx. 5839' (5.36 acres)	4" line
from MC Hagood A 12X	to satellite header	approx. 3673' (3.37 acres)	4" line
from MB Larson A 3X	to satellite header	approx. 1037' (0.95 acres)	4" line
from new satellite header	to Collection Station #4.	approx. 3916' (3.59 acres)	6" and 10" line located in the same ditch
from MC McLaughlin 39A	to Collection Station #8.	approx. 5977' (5.49 acres)	6" line
from Associated Unit A 2	to Collection Station #8	approx. 5517' (5.07 acres)	4" line
from AC McLaughlin 81X	to Collection Station #10.	approx. 3505' (3.22 acres)	4" line

All rights-of-way will be 40 feet wide. Total area of disturbance will be approximately 27.05 acres. Pipes will be 4, 6, and 10 inch Star Fiberglass. Lines will be buried with approximately 42 inches of cover with marker tape and stakes throughout. The requested right-of-way will be fully reclaimed to current BLM Specifications and Stipulations.

Summary - 13 Point Surface Use Plan

The White River Resource Field Manager shall be notified 24 hours in advance before any construction begins on the proposed location sites. During operations, if discoveries of any cultural remains, monuments or sites, or any object of antiquity subject to the Antiquity's Act of June, 1906 (34Stat. 225; 16 U.S.C. Secs. 431-433), the Archeological Resources Protection Act of 1979 (PL 96-95), and 43 CFR, Part 3, operations will immediately cease and will be reported directly to the Field Manager.

The access roads will be upgraded and maintained as necessary to prevent soil erosion, and accommodate year round traffic. Approval shall be requested to continue operations should the surface become saturated to a depth of three (3) inches. Turnouts will not be required. There are no fences on the property. Installing gates, cattle guards, or cutting fences will not be required. All permanent facilities placed on the location will be painted Carlsbad Canyon Brown (Fuller Brand Colorant 31293 or equivalent) to blend with the natural environment. The well cellar will be covered with steel grating and no hazards will exist for livestock or wildlife.

The reserve pits will be dug into the Mancos shale which is on the surface. The unweathered shale is for all practical purposes impervious and will not require lining. These pits will be constructed approximately 4' deep and at least one half of this depth shall be below the surface of the existing ground and will be used as a storage area during the drilling of the wells for non-flammable materials such as cuttings, salts, drilling fluids, chemicals, produced fluids, etc. The pits will be fenced with 32" to 48" high woven wire to protect wildlife and domestic animals and will remain fenced with woven wire until reclaimed. Overhead flagging will be installed over pits should oil accumulate or be discharged.

When all drilling and production activities have been completed, location sites will be reshaped to the original contour. Any drainage re-routed during the construction activities shall be restored to their original line of flow as near as possible. Cuttings and drilling fluids will be buried in the reserve pit. Prior to burial of the cuttings and mud, any liquid oil or water will be trucked to the recovery plant.

The White River resource Field Manager will be notified at least 24 hours prior to commencing reclamation work. Any disturbed area not needed for well operation and access roads will be revegetated and rehabilitated. Topsoil will be distributed evenly over these areas. The seedbed will be prepared by disking following the natural contour. Drill seed on contour at a depth no greater than ½ inch. In areas that cannot be drilled, broadcast at double the seeding rate and harrow seed into the soil. Certified seed will be used. Fall seeding must be completed after September 1, and prior to prolonged ground frost. Seeding will be done using the seed mixture listed below. Perennial vegetation must be established.

Crested Wheatgrass (Nordan)	3 Lbs. PLS/acre,
Siberian Wheatgrass (P27)	4 Lbs. PLS/acre,
Russian Wildrye (Vinal)	2 Lbs. PLS/acre,

Additional work will be required in case of seeding failures, etc. When the well is abandoned, the location will be restored to the original contours and seeded using the same procedures as interim reclamation.

No Action Alternative: The APD's would be denied. No access roads, well pads or flowlines would be constructed. There would be no additional environmental impacts.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: None

NEED FOR THE ACTION: To respond to the request by applicant to exercise lease rights and develop hydrocarbon reserves.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Page 2-5

Decision Language: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: There are no special air quality designations or non-attainment areas in the vicinity of the proposed action.

Environmental Consequences of the Proposed Action: The proposed action would result in short term, local impacts to air quality during and after construction, due to dust being blown into the air. However, airborne particulate matter should not exceed Colorado air quality standards on an hourly or daily basis.

Environmental Consequences of the No Action Alternative: Impacts are not anticipated from the no-action alternative.

Mitigation: None.

CULTURAL RESOURCES

Affected Environment: all of the proposed well locations and associated well tie flow lines are located in the Rangely Field which has been inventoried (Larralde 1980) and is covered by a programmatic agreement with the Colorado SHPO.

Environmental Consequences of the Proposed Action: The proposed wells will not impact any known cultural resources.

Environmental Consequences of the No Action Alternative: There would be no new impacts to cultural resources under the No Action Alternative.

Mitigation: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator

will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: There are no known noxious weeds at or near the proposed locations. The invasive alien cheatgrass is present on disturbed non-revegetated sites in the project area.

Environmental Consequences of the Proposed Action: The proposed action will create earthen disturbance providing safe sites for the invasion and proliferation of noxious weeds and *Bromus tectorum* (cheatgrass). Without application of proper mitigation there will be a long term negative impact on the environment.

Environmental Consequences of the No Action Alternative: There will be no change from the present situation.

Mitigation: The operator will be responsible for monitoring the locations of the proposed action and for the eradication of all noxious and invasive species on both the proposed locations and access roads using materials and methods approved by the authorized officer.

MIGRATORY BIRDS

Affected Environment: The project area is encompassed by arid salt desert shrublands consisting principally of basin big sagebrush, shadscale and Gardner saltbush. Herbaceous ground cover is generally sparse and is dominated by cheatgrass, weedy introduced forbs (e.g., claspings pepperweed) and seeded reclamation grasses. These salt desert communities typically support species such as vesper and sage sparrow, western meadowlark, sage thrasher and horned lark.

Environmental Consequences of the Proposed Action: Earthwork associated with this project is expected to be completed in advance of the nesting season and would have no potential to interfere materially with nests. Drilling operations would likely extend into the nesting season but since nest initiation would have been conducted in the face of ongoing pad development continuation of development activities, confined to the pad, would not be expected to disrupt nesting outcomes (particularly since nest site tenacity increases through the nesting season). Any involvement with suitable nest habitat would be minor, as these community types comprise about 10,000 acres in Rangely Oil Field.

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have potential to influence the reproductive activities or habitat of migratory birds.

Mitigation: None

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: The project area is broadly encompassed by white-tailed prairie dog habitat (WTPD). Field visits during August and October indicate evidence of occupation by prairie dogs at all proposed pad sites (Table 1), however; only 1/3 of the burrows appeared active as indicated by fresh scat at burrow openings. Subsurface disturbance along the proposed flowline would affect approximately 80 burrows (single-entrance and mounds, Table 2). All other burrows associated with the flowline would have minimal surface disturbance related to right-of-way clearing. To avoid intersecting large numbers of prairie dog burrows associated with flowline trenches, Chevron, at the former request of BLM, offsets parallel flowline by 15 or more feet. Based on BLM inventories, prairie dog activity associated with this proposed action is 42% greater along flowline corridors compared to that of native rangeland simply because the disturbed areas of existing flowlines are easier for prairie dogs to burrow into.

Table 1 WTPD habitat (mounds and single entrance burrows) affected by the construction of proposed well pads in Rangely Oil Field. (ROF)

Well Site	Total acres disturbed	Mounds	Single-entrance
3X	2.94	7	28
12X	2.94	8	36
13X	3.08	7	23
39 (re-drill)	2.62	3	27
2X	3.01	7	38
81X	2.94	2	29
81X access road	.51	1	14
Total	18.04	35	195

Table 2 WTPD habitat (mounds and single entrance burrows) affected by the construction of flowlines associated with proposed well pads in ROF

Flowline Site	Total acres	Mounds affected	Mounds ROW	Single-entrance affected	Single-entrance ROW	Existing flowline**
MB Larson A 3X	.95	4	4	9	12	0
MC Hagood A 13X-CS4	5.36	3	5*	41	22	66
MC Hagood A 12X	3.37	0	3	3	5	0
MC McLaughlin 39A & Associated Unit A 2	10.56	2	1	16	26	142
AC McLaughlin 81X	3.22	0	1	4	6	30
Total	23.46	9	14	73	71	238

*if flowline is moved as discussed in the mitigation section, two mounds would be avoided

**number of WTPD burrow openings associated with existing flowline

Prairie dogs and their burrow systems are important components of burrowing owl habitat, as well as potential habitat for reintroduced populations of black-footed ferret. Burrowing owls, a

State threatened species are uncommon in this Resource Area. These birds return to occupy a maintained burrow system in early April and begin nesting soon after. Most birds have left the area by September. While burrowing owls have been documented in Rangely Oil Field, no burrowing owl nesting activity has been recorded near the six proposed well sites or flowline corridors.

Under the auspices of a non-essential, experimental population rule, black-footed ferrets have been released annually in Coyote Basin (eight miles southwest) and Wolf Creek (13 miles northeast) of Rangely Oil Field since 1999 and 2001, respectively. The rule applies to any ferrets that may occupy or eventually be released in northwest Colorado and northeast Utah. Although there is no direct continuity between Coyote Basin or Wolf Creek and the project site (i.e., lesser physical barriers and habitats unoccupied by prairie dog) there is a strong likelihood that ferrets have colonized and successfully breed in Rangely Oil Field. Ferrets are wholly reliant on prairie dogs for food and shelter. Ferret breeding activities begin in early March, with birthing beginning in early May. Young ferrets generally begin to emerge by mid-July. There have been no verified sightings of ferrets, nor any known reproduction occurring in Rangely Oil Field.

Environmental Consequences of the Proposed Action: Minor movement of pads 3X, 12X, 13X, 2X, and 81X was employed during the initial on-site to reduce prairie dog burrow involvement as much as practical. However, due to the widespread distribution of prairie dogs in these areas, there were no reasonable alternatives that would have substantively decreased prairie dog burrow involvement. As discussed mitigation, it is recommended that movement of the proposed flowline segments should be employed to avoid unnecessary disturbance to prairie dog burrows and native rangeland in several locations and integrate further reclamation on existing flowline segments where past reclamation had failed.

With regards to burrowing owl, prairie dog and ferret breeding issues, it would be advantageous to schedule earthwork outside the period between 1 April and 15 July. Avoiding this timeframe would provide sufficient time for the rearing, emergence, and dispersal of young from natal burrows and effectively eliminate the likelihood of adversely affecting these animals' reproductive efforts. Chevron has agreed to construct pads, clear flowline right-of-ways, and trench those flowline segments affecting prairie dogs prior to 1 April. This method of cooperatively minimizing risk to ferrets outside designated ferret management areas is consistent with the Wolf Creek Ferret Management Plan.

Until burrowing owls arrive on these breeding ranges in April, there is no credible means of assessing impacts to nest activity. In the event earthwork associated with this project cannot be completed prior to early April, BLM would conduct nest surveys on affected flowline segments and pads and conditions of approval would be applied to defer activities that may interfere with successful nest outcomes (under provisions of the Migratory Bird Treaty Act).

As part of BLM's ongoing ferret reintroduction efforts, BLM will continue to monitor ferrets throughout the fall and winter in Rangely Oil Field and the proposed project area will be specifically surveyed for evidence of ferret activity. Although BLM has no evidence to suggest that ferrets currently occupy Rangely Oil Field, particularly with BLM-prescribed modifications

to flowline and pad locations, there is no reasonable probability of subsurface disturbance intersecting a prairie dog burrow system occupied by a ferret in Coal Oil Basin.

Environmental Consequences of the No Action Alternative: There would be no potential influence on prairie dogs as habitat for burrowing owl and black-footed ferret in the case of a no action alternative.

Mitigation: Earthwork that involves prairie dog burrow systems would be conducted outside the period of April 1 to July 15 to avoid the remote chance of disrupting the reproductive activities of ferrets, burrowing owl, and prairie dogs. It is recommended that the southerly portion of the proposed flowline which comes directly off pad 13X be routed approximately 40 meters to the east. The proposed flowline should be moved closer to the existing flowline right-of-way from pad 13x to approximately 70 meters south of pad 12X and also between well pad Larson A2 south to the first road intersection (UTM 12T 0675515/4445102 and 12T 0675547/4444675 (NAD 27), respectively) in order to maximize the use of the existing parallel flowline right-of-way. To rectify a failed reclamation attempt, the portion of flowline between UTM points 12T 0676289/4444032 and 12T 0676011/4444303 (NAD 27) should be reseeded with the recommended seed blend listed in the proposed action. See Map B.

Finding on the Public Land Health Standard for Threatened & Endangered species: Public Land Health Standards for those special status species associated with white-tailed prairie dogs, including black-footed ferret and burrowing owl, in Coal Oil Basin are currently met. As conditioned, this project would have no adverse influence on populations, available extent of suitable habitat, or the reproductive activities of these three species. Thus, there would be no influence on meeting the land health standard. Small incremental gains in perennial grass cover associated with successful reclamation and subsurface tillage associated with flowline installation may be expected to bolster local populations of prairie dogs and potentially benefit individual burrowing owl and black-footed ferret—effects consistent with continued meeting of the Land Health Standards.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: None

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The proposed action is in the Sinking Water watershed which is tributary to the White River below Rangely. Limited data is available for Stinking Water. Past instantaneous measurements of flow and water quality indicate the water to be high in total dissolved solids. The drainage is found in segment 22, which is all tributaries to the White River, including all wetlands, lakes and reservoirs, from a point immediately above the confluence with Douglas Creek to the Colorado/Utah border, except for specific listings in Segment 23.

A review of the Colorado's 1989 Nonpoint Source Assessment Report (plus updates), the 305(b) report, the 303(d) list and the Unified Watershed Assessment was done to see if any water quality concerns have been identified. These wells is in a Category 1, Priority 2, watershed (The Lower White) identified in the Unified Watershed Assessment report. The state has reasons to believe this watershed has water quality problems (sediment and salinity loads) that may impair the watershed. Information needs to be gathered before total maximum daily loads (TMDL) will be determined.

The State has classified this stream segment as Aquatic Life Warm 1, Recreation 1a, Water Supply and Agriculture. The state has further defined water quality parameters with table values. These standards reflect the ambient water quality and define maximum allowable concentrations for the various water quality parameters. The anti-degradation rule applies to this segment meaning no further water quality degradation is allowable that would interfere with or become harmful to the designated uses.

Environmental Consequences of the Proposed Action: Impacts to water quality from development of these pads and flowlines would be similar to other surface disturbing activities. Some of the impacts would be exposure of soil surface to wind and water erosion, reduced water quality due to erosion of sediment and salt, off flowline rights of ways, and piping or rill erosion where flowline disturbance are exposed to climatic elements. These impacts would be short term until re-vegetation has occurred.

Environmental Consequences of the No Action Alternative: Impacts are not anticipated from not allowing the proposed action.

Mitigation: None.

Finding on the Public Land Health Standard for water quality: Water quality of Stinking Water meets the current Public Land Health Standards and will continue to do so with the implementation of the proposed action.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: There are no wetlands or riparian communities within eight miles of the project site.

Environmental Consequences of the Proposed Action: None

Environmental Consequences of the No Action Alternative: None

Mitigation: None

Finding on the Public Land Health Standard for riparian systems: This project would have no conceivable potential for influencing riparian attributes addressed in the Standards.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No ACEC's, flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action. For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: The soil-mapping unit for well pads and flowlines to 18X, 3X and 39A is #7, which is Billings silty clay loam, 0-5 percent slopes. This soil is very deep and well drained. It is calcareous throughout. Typically the top soil surface layer is about 2" thick. The underlying 4" of material, to a depth of 60 inches or more, is silty clay loam that has a few fine gypsum crystals. Runoff from this soil type is rapid, and the hazard of water erosion is moderate to high. It is an alkaline slopes range site.

The soil mapping unit for well pads and flowlines to 12X, A2X, and 13X is #16, which is Chipeta silty clay loam, 3 to 25 percent slopes. This shallow, well drained soil is on low, rolling hills and on toe slopes. It formed in residuum derived from calcareous, gypsiferous shale. Areas are rounded to irregular in shape and are 20 to 800 acres in size. The native vegetation is mainly salt-tolerant shrubs and grasses. Typically, the surface layer is light brownish gray silty clay loam about 3 inches thick. The next layer is light olive gray silty clay about 6 inches thick. The

underlying material is light olive gray silty clay that has fine shale chips and seams of crystalline gypsum and is about 9 inches thick. Shale is at a depth of 18 inches. Depth to shale ranges from 10 to 20 inches. Permeability of this Chipeta soil is slow. Available water capacity is low. Effective rooting depth is 10 to 20 inches. Runoff is rapid, and the hazard of water erosion is high. It is in Clayey Saltdesert range site.

Environmental Consequences of the Proposed Action: Short-term impacts would be expected from any surface disturbing activity. Impacts from the proposed action would be loss of the protective vegetation cover, possible increase in salt and sedimentation during storm events and soil compaction from equipment. These impacts could continue until successful re-vegetation has occurred. Re-establishing vegetation as soon as it's allowable would be favorable in controlling any erosion problems that may occur.

Environmental Consequences of the No Action Alternative: In the no-action alternative, neither the surface disturbance nor impacts to soils resources would occur.

Mitigation: The operator will be responsible for monitoring for salts leaching from soils. If large salt deposits begin to appear, the operator will notify BLM, together they will coordinate the application of best management practices to help mitigate the problem.

Finding on the Public Land Health Standard for upland soils: The proposed action will have no effect on the soils' ability to meet the land health standard.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The proposed action is located within Alkaline Slope and Clayey Saltdesert ecological sites, which are dominated by salt tolerant vegetation. The dominate plant community for these sites consist of greasewood, various saltbrushes (shadscale, 4-wing saltbrush, garnder saltbrush, matt saltbrush, etc.), and big sagebrush, which have an understory of dominated by western wheatgrass, and squirreltail. Cheatgrass is an undesirable, invasive, and alien plant species that is prevalent within the locality of the proposed action.

Drought conditions are very prevalent within the Coal Oil Basin area, which has hampered the successful establishment of reclaimed plant species of other projects in this area. Therefore, undesirable and invasive annual plant species (i.e. halogeton, cheatgrass) have become dominate in a portion of these disturbed areas which provide little resource value.

Environmental Consequences of the Proposed Action: The proposed action would disturb a mid to low seral class of saltdesert shrub community for a total of 18.04 acres for well pads and 27.05 acres for flowlines. A portion of the short-term soil and vegetation disturbances would be offset in the long-term by reclaiming the disturbed area with a seed mix that is suited for this ecological site. As this area has a component of cheatgrass within the plant community, successful re-vegetation efforts, particularly along the flowlines, would increase desirable plant species within the rangelands.

Previously this area has entailed considerable impacts from oil and gas activities from a network of well pads, powerlines, flowline corridors, and access roads, which have resulted in a fragmentation and reduction of available, productive range sites.

Environmental Consequences of the No Action Alternative: None

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The proposed action would disturb a small segment of the Alkaline Slope and Clayey Salt-desert ecological sites. Further fragmentation of plant communities in this area would occur on a minor scale.

The locality of the proposed action lacks desirable plant species at an appreciable density and frequency level. This is due to the prevalence of cheatgrass within the vegetative understory. A positive benefit would be received through a successful re-vegetation effort, thus increasing preferred plant species within this low producing rangeland.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: There are no aquatic habitats conceivably affected by this action. The White River, representing the nearest aquatic habitat, is separated from the project area by about eight miles of ephemeral channel.

Environmental Consequences of the Proposed Action: None

Environmental Consequences of the No Action Alternative: None

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): This project would have no conceivable influence on aquatic habitat conditions addressed in the Standards.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: This heavily developed portion of Coal Oil Basin is inhabited year-round by a small resident herd of pronghorn. These animals are acclimated to routine oil and gas production activities. A number of raptors forage opportunistically during the winter in Coal Oil Basin, the most common being rough-legged hawks, red-tailed hawks, and golden eagle. The project area and the surrounding area provide no special or unique habitat features (e.g., nesting substrate) or forage base for these birds.

Environmental Consequences of the Proposed Action: This project, as mitigated, would have no conceivable adverse consequences on big game distribution or habitat quality. Right-of-way reclamation normally provides herbaceous forage opportunity in excess of that previously existing and in many cases will replace cheatgrass and halogeton-dominated understories almost immediately after construction is complete. Suggested flowline moves (see T&E Species section) were made with the explicit intent of maximizing the use of existing flowline corridors where past reclamation had failed. While surface disturbance would cause a longer-term reduction in woody forage supply, the incremental shrub reductions are wholly insignificant with respect to the available forage base. Standard reclamation procedures would provide the opportunity to increase the perennial grass component on these corridors in the longer term, increasing ground cover and seed production and prolonging the availability of green herbaceous forage for resident big and non-game animals.

Environmental Consequences of the No Action Alternative: Post-construction reclamation normally provides herbaceous forage opportunity in excess of that previously existing, and in many cases will replace cheatgrass-dominated understories. There would be no opportunity under the no-action alternative to improve herbaceous ground cover and composition along the existing right-of-way as cover and/or forage for resident wildlife in the long term.

Mitigation: None, but see mitigation for T&E Species section above.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): Much of the ground cover within the Rangely Field is dominated by annual weeds. Although these sites in and of themselves cannot be considered meeting the definition of the land health standard, the majority of the shrubland communities comprising this landscape likely retain sufficient character to support viable populations of resident wildlife, although likely at populations reduced from potential. Subsequent reclamation offers an opportunity to reestablish herbaceous forage and cover conditions (i.e., redevelopment of a perennial bunchgrass component) more consistent with the proper functioning of these arid salt desert communities as wildlife habitat, thus better opportunity to meet the land health standard.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management	X		
Forest Management	X		
Geology and Minerals			X
Hydrology/Water Rights	X		
Law Enforcement		X	
Paleontology			X

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Rangeland Management			X
Realty Authorizations	X		
Recreation		X	
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

GEOLOGY AND MINERALS

Affected Environment: The surface geologic formation of the wells is Mancos and Chevron's targeted zone is in the Weber. During drilling potential water, oil and gas zones will be encountered from surface to the targeted zone. All of the wells are located in the northwestern corner of the Rangely Field and are part of the Weber Sand Unit which has been in effect since 1957. All of the wells except for A2X, which is a fee well, are located on Federal oil and gas leases. The Federal leases involved with the wells are; COD-032675, COD-052265, and COD-053981.

Environmental Consequences of the Proposed Action: The cementing procedure of the proposed actions isolates the formations and will prevent the migration of gas, water, and oil between formations. Development of these wells will deplete the hydrocarbon resources in the targeted formation. If 39A was not properly completed during the original completion, there is potential for migration of fluids to occur between zones.

Environmental Consequences of the No Action Alternative: Maximum economic recovery of the oil and gas resources in the targeted zones would not occur.

Mitigation: If 39A is a re-entry a cement bond log should be performed to insure adequate cement exists behind the casing to isolate the resources and formations.

PALEONTOLOGY

Affected Environment: The proposed well locations and associated well tie flow lines are in an area mapped as Mancos Shale (Tweto 1979) which the BLM has categorized as a Condition II formation. It is known to produce fossil, usually marine invertebrates such as bacculites and only very rarely vertebrates.

Environmental Consequences of the Proposed Action: There is a very, very small probability of impacting scientifically important fossil resources during pad construction and reserve/blooi pit excavation on any of the proposed well locations.

Environmental Consequences of the No Action Alternative: There would be no new impacts to fossil resources under the No Action Alternative.

Mitigation: If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.

RANGELAND MANAGEMENT

Affected Environment: The proposed action is located in the Artesia Allotment (06308), which is authorized for sheep use by Morapos Sheep during the late fall to early spring periods.

The soils within the project area are principally a Billings Silty Clay Loam (Alkaline Slope ecological site) and Chipeta silty Clay Loam (Clayey Saltdesert ecological site), which are dominated by a salt tolerant desert shrub and grass community. These brush/grass communities are utilized by sheep for meeting forage requirements, particularly during winter months. This soil type has a high clay content that is moderate to highly erosive and receives low precipitation with rapid runoff, thus limiting forage production and hampering re-vegetation efforts.

Drought conditions are very prevalent within the Coal Oil Basin area, which has hampered the successful establishment of reclaimed plant species of other projects in this area. Therefore, undesirable and invasive annual plant species (i.e. halogeton, cheatgrass) have become dominate in a portion of these disturbed areas which provide little forage value for livestock.

Within close proximity to well #81X is the range improvement Raven Park Ret Dam (0145), which is an earthen constructed water locality. Currently, this dam has been washed out and does not hold water.

Environmental Consequences of the Proposed Action: The individual proposed action would have minimal impacts on the authorized grazing use because the amount of new surface disturbance (18.04 acres well pads, 27.05 acres flowlines) is nominal in regards to the scale of the allotment (43,347 total acres). However, previously this allotment has entailed considerable impacts from oil and gas activities, which have resulted in a reduction and fragmentation of available rangelands and in a loss of forage for grazing use. 18.04 acres (well pads) will be taken out of forage production for the lifespan of the well, with the 27.05 acres being available after successful revegetation.

A portion of the short-term soil and vegetation disturbances would be offset in the long-term by reclaiming the disturbed area with a seed mix that is suited for this ecological site. As this area has a large component of cheatgrass within the plant community, successful re-vegetation efforts would increase desirable forage species within the rangelands.

Grazing use by sheep in the Allotment can be authorized from November 28th through April 20th. The proposed action would have some limited impacts during this timeframe while sheep are grazing. This is due to the increased activity associated with the development of the proposed action and temporary decrease in rangelands available for grazing. Impacts to livestock grazing

may include such influences as a modification in sheep distribution, reduction in available forage, and impediments to livestock grazing and movement.

Overall, this individual proposed action would have no significant direct impact on the authorized Animal Unit Months (AUMs) in the allotments. A positive benefit would be received through a successful re-vegetation effort, thus increasing preferred forage plants within this low producing rangeland. However, the cumulative impacts from past, present, and possible future oil and gas activities may have a long-term effect on the native range's carrying capacity, thus influencing the authorized AUMs. This possible affect would be determined during the grazing permit renewal process.

Environmental Consequences of the No Action Alternative: None

Mitigation: Any activities associated with the proposed action that would affect the current state (washed out) of range improvement #0145 must be mitigated to provide a potential watering source for livestock, as the current state of #0145 is repairable.

VISUAL RESOURCES

Affected Environment: The proposed actions would be located within a VRM class IV area. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Environmental Consequences of the Proposed Action: The proposed well pads would be located among existing well pads in the Chevron/Rangely field. A casual observer traveling along the major transportation route in the area (SH 64) would be able to view these well pads and several others at the same time. The level of change to the characteristic landscape is already high, and the additional level of change of the proposed actions would be low. The major focus of the casual observer would not be directed toward the proposed actions any more than the existing well pads. Since the level of change to the existing character of the landscape would be low, the objective of the VRM class IV classification is retained.

Environmental Consequences of the No Action Alternative: There would be no additional environmental impacts from the no action alternative.

Mitigation: Use color for facilities as proposed in APD.

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from oil and gas development were analyzed in the White River Resource Area Proposed Resource Management Plan/Final Environmental Impact Statement (PRMP/FEIS) completed in June 1996. Current development, including the proposed action, has not exceeded the cumulative impacts from the foreseeable development analyzed in the PRMP/FEIS.

REFERENCES CTIED

Larralde, Signa

1980 Cultural Resource Inventory of a Sample of BLM Lands in the Rangely Oil field, Rio Blanco County, Northwestern Colorado. Nickens and Associates Consulting Archaeologists, Montrose, Colorado

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston Virginia

PERSONS / AGENCIES CONSULTED: none

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Carol Hollowed	P & EC	Air Quality
Tamara Meagley	NRS	Areas of Critical Environmental Concern
Tamara Meagley	NRS	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Robert Fowler	Forester	Invasive, Non-Native Species
Lisa Belmonte	Wildlife Biologist	Migratory Birds
Lisa Belmonte	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Carol Hollowed	P & EC	Water Quality, Surface and Ground Hydrology and Water Rights
Lisa Belmonte	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	ORP	Wilderness
Carol Hollowed	P & EC	Soils
Jed Carling	Rangeland Specialist	Vegetation
Lisa Belmonte	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	ORP	Access and Transportation
Ken Holsinger	NRS	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Jed Carling	Rangeland Specialist	Rangeland Management

Name	Title	Area of Responsibility
Tamara Meagley	NRS	Realty Authorizations
Chris Ham	ORP	Recreation
Keith Whitaker	NRS	Visual Resources
Valerie Dobrich	NRS	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2004-191-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION/RATIONALE: It is my decision to approve the development of the proposed action, with the mitigation measures listed in the attached Conditions of Approval.

MITIGATION MEASURES: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

3. The operator will be responsible for monitoring the locations of the proposed action and for the eradication of all noxious and invasive species on both the proposed locations and access roads using materials and methods approved by the authorized officer.

4. Earthwork that involves prairie dog burrow systems would be conducted outside the period of April 1 to July 15 to avoid the remote chance of disrupting the reproductive activities of ferrets, burrowing owl, and prairie dogs. It is recommended that the southerly portion of the proposed flowline which comes directly off pad 13X be routed approximately 40m to the east. The proposed flowline should be moved closer to the existing flowline right-of-way from pad 13x to approximately 70 m south of pad 12X and also between well pad Larson A2 south to the first road intersection (UTM 12T 0675515/4445102 and 12T 0675547/4444675 (NAD 27), respectively) in order to maximize the use of the existing parallel flowline right-of-way. To rectify a failed reclamation attempt, the portion of flowline between UTM points 12T 0676289/4444032 and 12T 0676011/4444303 (NAD 27) should be reseeded with the recommended seed blend listed in the proposed action. See Map B.
5. The operator will be responsible for monitoring for salts leaching from soils. If large salt deposits begin to appear, the operator will notify BLM, together they will coordinate the application of best management practices to help mitigate the problem.
6. If 39A is a re-entry a cement bond log should be performed to insure adequate cement exists behind the casing to isolate the resources and formations.
7. If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately stop activities that might further disturb such materials, and contact the authorized officer (AO). The operator and the authorized officer will consult and determine the best option for avoiding or mitigating paleontological site damage.
8. Any activities associated with the proposed action that would affect the current state (washed out) of range improvement #0145 must be mitigated to provide a potential watering source for livestock, as the current state of #0145 is repairable.
9. Use color for facilities as proposed in APD.

NAME OF PREPARER: Tamara Meagley

NAME OF ENVIRONMENTAL COORDINATOR: Carol Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL:


Field Manager

DATE SIGNED:

11/16/04

ATTACHMENTS:

Location Map of the Proposed Action
Map A
Map B

Location of Proposed Action CO-110-2004-191-EA

